



SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1968

A NONPROFIT AMATEUR TECHNICAL ORGANIZATION DEDICATED
TO THE ADVANCEMENT OF COMMUNICATIONS ABOVE 1000 MC.

W6IFE Newsletter

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At the 1 **July 2004** meeting of the SBMS, 1 July SBMS meeting Chip, N6CA; Mel, WA6JBD and Wayne, KH6WZ will give a 10-15 minute talk on their 10 GHz rig using it as a visual aid. They will try to do a module-by-module description but nothing elaborate. Explaining why particular modules were chosen, where they were obtained, about how much they cost, good and bad results, etc. This could help others to avoid mistakes and give somebody an idea for an add on or improvement to their rig. There maybe opportunity to squeeze in the noise measurements if possible. The SBMS meets at the American Legion Hall 1024 Main Street (south of the 91 freeway) in Corona, CA at 1900 hours local time on the first Thursday of each month. Check out the SBMS web site at <http://www.ham-radio.com/sbms/>.

SBMS meeting parking- We have become a great number of members at meetings. We park next to the church in the adjacent lot or on the street and or in the lot across the street. Across the street the sign on the building shows: 1025 Main Street. MAIN STREET BISTRO. The sign on the parking lot says: CLIN CHIROPRACTIC CARE Dick, WB6DNX

A reminder that the third Saturday of each month is Microwave Activity Day starting after the Pomona/ Cal Poly Swap meet through mid afternoon.

Last meeting_ Bill, WA6QY; Dick, WB6DNX; and John, give a 10-15 minute

talk on their 10 GHz rig using it as a visual aid. July 10 was tentatively set for a measurement party for 10 GHz rigs like years in the past, but need to check to see if Kerry can do it and Dick, WB6DNX would look into a location. Our visitor was Peter, G3SMT an active EME'r from the UK. Welcome to new members Coll Barfield KC6RWR in Redondo Beach, CA; John Hoot N6NHP of San Clemente CA; Mike, W6YLZ declined the post of VP and Larry K6HLH was elected for the year term. Pat, N6RMJ and David, KI6FF were out looking at hotels to have the Microwave Up Date 2005 in. 22 people present



Bill, WA6QYR talking about his Qualcomm parts within his 10 GHz transverter at the June SBMS meeting. Bill used the "Texas" synthezer modules with TCXO and gold boards to produce the 10 GHz signals. He has a power amplifier from one of the "brake drum" Qualcomm units that gives about 700-mw output. He has the EXV multiple switching power supply to power it all. It is all housed in an old HP430 power meter case. Metering uses the large power meter meter on from to read voltages inside and an RF output to note if it is operating OK.

Scheduling.

10 July Tune Up Party Costa Mesa Fairview Park (see map)

5 August. Planning for the up coming contest.

7-8 August ARRL UHF Contest

21-22 August ARRL 10 GHz and Up Contest

11-12 September ARRL September VHF QSO Party

18-19 September ARRL 10 GHz and Up Contest

14-16 October 2004 Microwave Update in Texas

"Wants and Gots for sale"

2 Rack Cabinets Free for pick up - call to make arrangement. Both about 6 ft high and accept 19" panels. See photo at the bottom of <http://www.hamtv.com/Specials.html> Tom O'Hara, Arcadia 626-447-4565

Want six 100 ft runs of used 7/8th inch hardline and connectors Mike W6YLZ 818-349-8525

Want 10 GHz 1-4 watt RF transistors Chris N9RIN 949-388-3121

Want WR-90 to WR-75 transitions (2) and 8930 tubes John KJ6HZ 909-683-1434

For Sale HP432A Power Meter with cable and 10 GHz n head \$100; medium duty tri pod w/head \$50,

HP5245L Counter w/ manual, 5253B 50-500 MHz Plug-in, 5254A .3-3 GHz Plug-in, 5254B .2-3 GHz Plug-in, 5255A 3-12.4 GHz Plug-in \$100 Kurt K6RRA 310-718-4910 k6rra@gte.net

Activity reported at the June SBMS meeting were: Gary W6KVC went to Dayton convention with the rain; Larry K6HLH down loaded some rain scatter software; Dick, K6HIJ still is getting 55 dB isolation in the mods to the WR42 waveguide switches and is building a feed system for the Owens Valley project; Mike W6YLZ has a 1 w 10 GHz amp and is going to XE2 for June contest; Ken, W6DTA worked on new 10 GHz rig, modified a 432 IF radio for use on 24 GHz and will be in DM22 for contest; Larry, KE6EG has a new 10 GHz LNA; Wayne, KH6WZ rebuilt his 10 GHz rig for June; John, KJ6HZ has a noise figure test set up; Jeff, KN6VR has new tower up; Bob, WA6VHShas his 10 GHz rig in a box now, a NB6NT 5 GHz transverter built and a 11-12 GHz synthesizer; Dennis, WA6NIA did a 10 GHz demo for his company, will be out for a Scoutorama in Long Beach; Doug, K6JEY has a 1980's Japanese 1296 transverter; Scott, K0SMC did some VHF contacts; Peter G3SMT is getting back into microwave; Greg, K6QPV indicated that Santiago beacon is working; Ed, W6OYJ talked about SDMG having a tune up party and SBMS in July should have 10, 24, and 47 GHz gear; Chuck, WA6EXV put u a car port, will have the 10 ft dish running on some French software and boards, and is building a 1296 MHz rig; Dick, WB6DNX did honey dos; Mel, WA6JBD working on a next generation 10 GHz rig; Chris, N9RIN has been to Dave's shop to do LNA work, Has DB6NT 10 GHz rig working with 1.7 dB NF and 400 mw out.

2005 Microwave Update Planning

On the Microwave Update 2005 Pat N6RMJ is the leader and Dick, K6HIJ is the registration person. Initially they are looking at the Sheridan in Cerritos, CA for the site. The operation needs a list of surplus electronic hardware places to visit on Thursday tour. The list needs to include where the store is located and hours of operation and what types of materials are available. Bill, WA6QYR is collecting the list of stores. Judy, KC6UTF has volunteered to help with the XYL/ Spouse tours. .

Where is the info on your favorite surplus or shopping spot for electronic goodies? You haven't forwarded that to bburns@ridgenet.net yet.



Dick, WB6DNX spoke at the June SBMS meeting about his "temporary" 10 GHz transverter that he build several years ago that has turned out to be the rig ever since. Dick has used the Celentex up and down converter

modules with Qualcomm syntheses to provide the 10 GHz LO. The reference is an internal double ovenized crystal oscillator that can be replaced with an external source of tighter tolerance. Dick has a "brake drum power amplifier at 250 mw.

Getting to Mount Soledad in San Diego (see enclosed map with old street names)

I am writing these notes for anybody to use getting to our famous 822 ft Mountain. (More real DX has been worked from here, than from Pike's Peak!) Getting to Mount Soledad in San Diego is easier now, but still confusing. Most maps do not show the following changes. The name of Ardath Road has been changed to La Jolla Parkway. The Hidden Valley Rd intersection has been moved.

1A. If you are arriving on I-5 from the South (Downtown San Diego), take the La Jolla Parkway Exit (It used to be named Ardath Road). Follow it over the summit, stay in the left lane. Turn left at the first signal onto Hidden Valley Rd. Go to Step 2.

1B. If you are arriving on I-5 from the North, Stay on I-5 at the I-5/I-805 junction. After passing Gilman Drive, take the Hwy 52 East (Yes East!) Exit and continue about 3/4 mile on Freeway 52. Take the Regents Road Exit, turn left under the Freeway 52 overpass, and turn left again to get on Freeway 52 WEST. Move into the far left lane and continue as it goes up over I-5 and merges with La Jolla Parkway. Stay in the left lane. Turn left at the first signal onto Hidden Valley Rd. Go to Step 2.

1C. If arriving on I-15 from the North, stay right and take Freeway 163 at the I-15/Fwy 163 split. Then after a few miles take Freeway 52 West. Go several miles, stay on 52. After passing the Regents Road Exit move into the far left lane and it will merge with La Jolla Parkway. Stay in the left lane and turn left at the first signal onto Hidden Valley Road. Go to Step 2.

2. Continue ahead on Hidden Valley Rd. Pass the stop sign. Follow the double yellow lines as it curves while gaining altitude. Eventually you yield and turn right at a Tee-intersection onto Via Capri. This steep road climbs through residential areas until it reaches the roadway summit with a sharp right turn at a yield sign. Stop here at this blind corner, signal a left turn, and wait until the traffic from the right is clear. They do not stop! Turn left into Mt Soledad Park. (Gate here supposed to open at 7 A.M.)

3. On your immediate left is a paved parking lot (overflow parking). The north point of this parking lot is a good spot for working stations to the NW, N, and NE. It is blocked by the higher part of the Park toward the ENE, E, and ESE. From this same parking lot, on the side next to the Park entrance road, you can find a spot with a view to the SE, over Downtown San Diego. This location works for direct shots to Baja. The problem with this location is that you cannot work Arizona or some of the SD locals due to the terrain blockage to the East. There are usually VERY FEW TOURISTS HERE.

4. The main part of the Soledad Park is the area just east and NE of the big Cross at the summit. As you proceed up the park road, stay to the right as it goes counterclockwise around the Cross. There are only four parking places in the first parking area East of the Cross. These are closest to where you want to be, but you have to be lucky to get one. Further around the Cross on the North Side are about 20 parking spaces. This is where most of the tourists congregate, but they will find you in either spot. From these two locations you can attempt to work Arizona. The first spot is best overall, though due to recent concrete "improvements" at the Veterans Memorial surrounding the Cross, you will have to move North a bit to allow direct shots toward Gaviota (304 degrees true).

5. True Beacon headings from Soledad: Palos Verdes=314, Frazier=324, Santiago=344.5, Mt San Miguel (San Diego)=119. The grid square here is DM12ju.

6. Bulletproof shielding and filtering is a must for Mt Soledad due to megawatts of TV, FM Bdcst, Paging, and commercial radio comms.

7. The above references to the Cross on Mt Soledad may be OBE soon. Court rulings have voided the transfer of the Veterans Memorial Land and Cross from the City to the Veteran's Memorial organization. The Cross may soon be removed. Also, since the name of San Diego refers to a "Saint", the City may soon just be called "Diego". or even "Dago". The Calif. maps will soon be revised with major cities called Ana, Barbara, Jose, Francisco, and even Monica!! Go figure.

8. If you want to go home on I-5, you will have to retrace your movements back to Regents Road and again do a U-turn under the 52 Freeway, so you can go west and take the "Los Angeles" ramp to I-5 North.

73s from Ed, W6OYJ 858-453-4563 remunn@earthlink.net



John, KJ6HZ with his 10 GHz rig at the June SBMS meeting. John used some of the modified MACOM modules to make up his rig. He purchased them from KMEC@aol.com. He has a Qualcomm brake drum power amplifier that puts out some 900 mw. His preamp is one of the Qualcomm brake drum series receive modules and a system noise figure of 2 dB. His IF receiver is a Kenwood 2 meter TR9000 multimode transceiver. He used a photographers shoe to mount the rig to the top of the tripod for easy roving. The dish feed is attached to the transverter box. The dish then mounts to the box once mounted on the tripod.

73's Bill



Bill, WA6QYR with his first SSB 10 GHz microwave transverter. This was using modified MACOM modules, 3 switching power supplies, an ovenized crystal oscillator, plus metering of DC and RF out put. This was put on the back of a 4 ft dish which was trailer mounted. Between the transverter and dish were preamp and TWT both mounted on the dish.

The San Bernardino Microwave Society is a technical amateur radio club affiliated with the ARRL having a membership of over 90 amateurs from Hawaii and Alaska to the east coast and beyond. Dues are \$15 per year, which includes a badge and monthly newsletter. Your mail label indicates your call followed by when your dues are due. Dues can be sent to the treasurer as listed under the banner on the front page. If you have material you would like in the newsletter please send it to Bill WA6QYR at 247 Rebel Road Ridgecrest, CA 93555, bburns@ridgecrest.ca.us, or phone 760-375-8566. The newsletter is generated about the 15th of the month and put into the mail at least the week prior to the meeting. This is your newsletter. SBMS Newsletter material can be copied as long as SBMS is identified as source.

San Bernardino Microwave Society newsletter

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USA